UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/076,357	02/14/2002	Dwip N. Banerjee	AUS920010893US1	1515

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EXAMINER
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ART UNIT	PAPER NUMBER
2152	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *22 November 2007*.
2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.
3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
     closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.
     4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5)☐ Claim(s) _____ is/are allowed.
6)☒ Claim(s) *1-20* is/are rejected.
7)☐ Claim(s) _____ is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.
10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
     a)☐ All   b)☐ Some * c)☐ None of:
         1.☐ Certified copies of the priority documents have been received.
         2.☐ Certified copies of the priority documents have been received in Application No. _____.
         3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
             application from the International Bureau (PCT Rule 17.2(a)).
    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
     Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
     Paper No(s)/Mail Date. _____.
5)☐ Notice of Informal Patent Application (PTO-152)
6)☐ Other: _____.

DETAILED ACTION

1.   This Office Action is responsive to communications filed on November 22, 2007.

Claims 1-20 are pending in the case.

Response to Arguments

2.   Applicant's arguments, filed November 22, 2007, with respect to the objection of

claims 11 and 16 as failing to provide the commencement of the claims on a separate sheet have

been fully considered and are persuasive. The objection of claims 11 and 16 is hereby

withdrawn.

3.   Applicant's arguments filed November 22, 2007, with respect to the rejection of

claims 1, 6, 11, and 16 under 35 USC §102 and claims 2-3, 7-8, 12-13, and 17-18 under 35 USC

§103 have been fully considered but they are not persuasive.

In response to Applicant's argument that "a processor module is a processing device not a

"data holding device"", see page 8, ¶4, Nakashima discloses "each processor module 1a to 1c is

comprised of a CPU (Central Processing Unit), a memory, and control devices, and carried out

various operations according to programs read from a storage device, not shown [0025]. It is

anticipated that a memory or a storage device is a data holding device.

In response to Applicant's argument that "defines a data holding device is irrelevant.

What is relevant are the claimed limitations", see page 8, ¶5, applicant is reminded that during

patent examination, the pending claim is "given their broadest reasonable interpretation

consistent with the specification." >The Federal Circuit's en banc decision in *Phillips v. AWH*

Corp., 415 F.3d 1303, 75 USPQ2d 1321 (Fed. Cir. 2005) expressly recognized that the USPTO

employs the "broadest reasonable interpretation" standard:

> The Patent and Trademark Office ("PTO") determines the scope of claims in patent
> applications not solely on the basis of the claim language, but upon giving claims their broadest
> reasonable construction "in light of the specification as it would be interpreted by one of
> ordinary sill in the art." *In re Am. Acad. of Sci. Tech. Ctr.,* 367 F. 3d 1359, 1364[, 70 USPQ2d
> 1827] (Fed. Cir. 2004). Indeed, the rules of the PTO require that application claims must
> "conform to the invention as set forth in the remainder of the specification and the terms and
> phrases used in the claims must find clear support or antecedent basis in the description so the
> meaning of the terms in the claims may be ascertainable by reference to the description." 37 CFR
> 1.75(d)(1).

As stated above, Nakashima discloses "each processor module 1a to 1c is comprised of a

CPU (Central Processing Unit), a memory, and control devices, and carried out various

operations according to programs read from a storage device, not shown [0025]. Examiner

considers a memory or a storage device is a data holding device.

Thus since it is well known in the art that a processing module, e.g., computer, is a data

holding device, it meets the claims.

In response to applicant's argument that the references fail to show certain features of

applicant's invention, it is noted that the features upon which applicant relies (i.e., ""Data

holding devices" … to include buffers", see page 9, ¶3) are not recited in the rejected claims.

Although the claims are interpreted in light of the specification, limitations from the specification

are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

In response to applicant's argument that "Nakashima specifically teaches that real IP addresses are assigned to the processor modules while a virtual IP address is assigned to the multiprocessor system", see page 9, ¶4, without pointing out where Nakashima teaches such. Nevertheless, applicant is invited to review [0054]..[0061] where Nakashima explicitly discloses assigning virtual IP address to processor modules PM#1 to PM#4, depending on the type of communication process.

In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). In this case, Nakashima teaches using virtual IP addresses when transacting data, while Acharya teaches providing a logical unit of storage (LUN), i.e., data holding device, with a virtual IP address. Since it would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize Acharya's method of virtualization of iSCSI Storage in Nakashima's system, motivated by the need of curbing the rising costs of storage management by enabling wider sharing of storage devices and the consolidation of storage resources under centralized administrative control, thus it meets the claims.

Claim Rejections - 35 USC § 102

4.   The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

5.   Claims 1, 6, 11, and 16 are rejected under 35 U.S.C. 102(e) as being unpatentable by Nakashima (US 2001/0023456).

Regarding claims 1, 6, 11, and 16, Nakashima discloses a method of transacting network data, comprising:

determining whether data being processed data is network data (as shown in Figures 2-3, Nakashima teaches when a request is received from a user via the internet 32, the multi-processor information processing provides processing for allowing the user to connect to an appropriate server (para 0039). The processors modules 10a to 10d are each comprised of a CPU, a memory, control devices, etc., and carry out various operations according to programs read from the storage device 10g (para 0047). Thus inherently it must determine whether data being processed is network data so the user can be connected to an appropriate server, or non-network data so operations can be carried out according to programs read from the storage device 10g); and

transacting, if the data is network data, the data using a virtual IP address, the virtual address being an IP address given to a data holding device in the multiprocessor system (e.g., assignment of virtual IP addresses can be defined for the PM#1 to PM#4 on a processor module by processor module basis, thus it is possible to determine the assignment of a virtual IP address to a processor module based on the type of a communication process; para 0058 - 0061).

Since the disclosure does not further define what a data holding device may entail, the Examiner considers the processor modules are indeed data holding devices.

Claim Rejections - 35 USC § 103

6.   Claims 2-3, 7-8, 12-13, and 17-18 are rejected under 35 U.S.C. 103(a) as being

unpatentable by Nakashima (US 2001/0023456), in view of Acharya et al (US 6,934,799),

hereinafter Acharya.

Regarding claims 2, 7, 12, and 17, Nakashima discloses substantially all the claimed

limitations, except the data holding device is a buffer.

Acharya teaches storage virtualization wherein receiving a packet that is part of a TCP

connection to a particular block range each of the target physical LUN can be mapped to a

virtual IP address (col. 3: line 49 – col. 4: line 36).

Thus it would have been obvious to one of ordinary skill in the art at the time the

invention was made to utilize Acharya's method of virtualization of iSCSI Storage in

Nakashima's system, motivated by the need of curbing the rising costs of storage management

by enabling wider sharing of storage devices and the consolidation of storage resources under

centralized administrative control.

Regarding claims 3, 8, 13, and 18, Nakashima-Acharya also discloses the buffer (1e, 10g,

10h) is implemented using memory allocation (Nakashima: para 0033, and 0049-0050).

Regarding claims 4, 9, 14, and 19, Nakashima-Acharya also discloses the buffer contends

for access to one of the limited physical interfaces (e.g., storage virtualization is employed to

contend for access to one of the limited physical interfaces; Acharya: abstract).

Regarding claims 5, 10, 15, and 20, Nakashima-Acharya also discloses before

transmitting the data to the physical interface, the virtual IP address replaced by a destination IP

address (col. 3: lines 58-67)

Conclusion

7.   **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of

time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the mailing

date of this final action.

8.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to VAN KIM T. NGUYEN whose telephone number is (571)272-

3073. The examiner can normally be reached on 8:00 AM - 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Bunjob Jaroenchonwanit, can be reached on 571-272-3913. The fax phone number

for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

                                                    Van Kim T. Nguyen
                                                    Examiner
                                                    Art Unit 2152

Vkn

/Bunjob Jaroenchonwanit/
Supervisory Patent Examiner, Art Unit 2152